## Fwd: RE: GBRA RAPlanet DOY 141/142 pass results

From: Charles Stelzried < Charles T. Stelzried@jpl.nasa.gov>

To: <u>Pamela.R.Wolken@jpl.nasa.gov</u>

**CC:** Martin.A.Slade-Ill@jpl.nasa.gov, Michael.J.Klein@jpl.nasa.gov, Lawrence.Teitelbaum@jpl.nasa.gov

Date: 2003-05-22 16:13

Pam: Analysis of the 'minicals' for this dss14 k-band activity taken during these measurements is attached. This does show a non-linearity of -3.6% (cell S22) with a stdev 0.2% (cell U22) for this K-band configuration.

The nonlinearity 'requirement' for a well oiled system should be less than 0.5% in my opinion\* for this non-linearity.

However, I assume this is not an operations problem but a design/maintenance problem?

-----

\* this opinion for 0.5% value as an upper limit and 0.2% as a goal has been argued; the impact depends on the user/experiment. For example, for a overall measurement of antenna eff accuracy of 1%, the individual errors such as nonlinearity should be less than 0.5%. I assume Mike does not need that accuracy for these particular measurments but only Mike can speak to that.

## Charles

```
>Date: Thu, 22 May 2003 08:20:18 -0700
>From: "Wolken, Pamela R." < PWolken@jftl.jpl.nasa.gov >
>Subject: RE: GBRA RAPlanet DOY 141/142 pass results
>To: "RARG DSS-14," <<u>RARGDSS-14@jgld.gdscc.nasa.gov</u>>
>Cc: "Snedeker, Charley" < CSnedeker@jgld.gdscc.nasa.gov >,
> "Holmgren, Erik" < <u>EHolmgren@jgld.gdscc.nasa.gov</u>>,
> "Bury, Gary" < GBury@jgld.gdscc.nasa.gov>,
> "McConahy, Ralph" < RMcConahy@jgld.gdscc.nasa.gov>,
> "Gregor, Tim" <TGregor@jgld.gdscc.nasa.gov>,
> "Stelzried, Charles T" < <a href="mailto:Charles.T.Stelzried@jpl.nasa.gov">"Charles.T.Stelzried@jpl.nasa.gov">"Charles.T.Stelzried@jpl.nasa.gov">"Charles.T.Stelzried@jpl.nasa.gov">"Charles.T.Stelzried@jpl.nasa.gov">"Charles.T.Stelzried@jpl.nasa.gov">"Charles.T.Stelzried@jpl.nasa.gov">"Charles.T.Stelzried@jpl.nasa.gov">"Charles.T.Stelzried@jpl.nasa.gov">"Charles.T.Stelzried@jpl.nasa.gov">"Charles.T.Stelzried@jpl.nasa.gov">"Charles.T.Stelzried@jpl.nasa.gov">"Charles.T.Stelzried@jpl.nasa.gov">"Charles.T.Stelzried@jpl.nasa.gov">"Charles.T.Stelzried@jpl.nasa.gov">"Charles.T.Stelzried@jpl.nasa.gov">"Charles.T.Stelzried@jpl.nasa.gov">"Charles.T.Stelzried@jpl.nasa.gov">"Charles.T.Stelzried@jpl.nasa.gov">"Charles.T.Stelzried@jpl.nasa.gov">"Charles.T.Stelzried@jpl.nasa.gov">"Charles.T.Stelzried@jpl.nasa.gov">"Charles.T.Stelzried@jpl.nasa.gov">"Charles.T.Stelzried@jpl.nasa.gov">"Charles.T.Stelzried@jpl.nasa.gov">"Charles.T.Stelzried@jpl.nasa.gov">"Charles.T.Stelzried@jpl.nasa.gov">"Charles.T.Stelzried@jpl.nasa.gov">"Charles.T.Stelzried@jpl.nasa.gov<">"Charles.T.Stelzried@jpl.nasa.gov<">"Charles.T.Stelzried@jpl.nasa.gov<">"Charles.T.Stelzried@jpl.nasa.gov<">"Charles.T.Stelzried@jpl.nasa.gov<">"Charles.T.Stelzried@jpl.nasa.gov<">"Charles.T.Stelzried@jpl.nasa.gov<">"Charles.T.Stelzried@jpl.nasa.gov<">"Charles.T.Stelzried@jpl.nasa.gov<">"Charles.T.Stelzried@jpl.nasa.gov<">"Charles.T.Stelzried@jpl.nasa.gov<">"Charles.T.Stelzried@jpl.nasa.gov<">"Charles.T.Stelzried@jpl.nasa.gov<">"Charles.T.Stelzried@jpl.nasa.gov<">"Charles.T.Stelzried@jpl.nasa.gov<">"Charles.T.Stelzried@jpl.nasa.gov<">"Charles.T.Stelzried@jpl.nasa.gov<">"Charles.T.Stelzried@jpl.nasa.gov<">"Charles.T.Stelzried@jpl.nasa.gov<">"Charles.T.Stelzried@jpl.nasa.gov<">"Charles.T.Stelzried@jpl.nasa.gov<">"Charles.T.Stelzried@jpl.nasa.gov<">"Charles.T.Stelzried@jpl.nasa.gov<">"Charles.T.Stelzried@jpl.nasa.gov<">"Charles.T.Stelzried@jpl.nasa.gov<">"Charles.T.Stelzried@jpl.nasa.gov<">"Charles.T.Stelzried@jpl.nasa.gov<">"Charles.T.Stelzried@jpl.nasa.gov<">"Charles.T.Stelz
> "Klein, Michael J" < Michael J. Klein@jpl.nasa.gov >
>Randy,
>Obviously, there were no data losses from the ANT and power meter
>problems or you would have opened a DR. Right now, we are under
>intense scrutiny for DRs, so please risk erring on the side of caution
>and open a DR for any and all problems encountered during all Science
>support activities.
>Thanks,
>p
>Pamela R. Wolken
>Consolidated Space Operations Contract
>Phone: 626 584-4414
>FAX: 626 584-4561
>Page: 626 932-7945
>
>> ----Original Message-----
                                 RARG DSS-14,
>> From:
```

```
>> Sent:
            Wednesday, May 21, 2003 10:42 PM
>> To: Stelzried, Charles T; Klein, Michael J
>> Cc: Snedeker, Charley; Holmgren, Erik; Bury, Gary; McCoy, Jim; Wolken,
>> Pamela R.; McConahy, Ralph; RARG DSS-14,; Gregor, Tim
>> Subject: GBRA RAPlanet DOY 141/142 pass results
>>
>>
>> Mike/Charles:
>> Here is the data for the RA Planet on DOY 142.
>>
>> SRC Position: 024; SEMOD on 14; 4121K
>> Receiver: K-HEMT LCP RARG 1; R&D Rcvr #1
>> System Temp: 41 07k
>>
>> Weather:
>>
      PreCal:
                     Sky
                               Clear
>>
                  Wind
>>
                              7mph/SE
>>
                  Temp
                              33C
                  Hum
                              11%
>>
                  BP
                            902 mBar
>>
>>
      PostCal:
                                Clear
>>
                     Sky
                  Wind
                              15 mph/WSW
>>
>>
                  Temp
                              26C
                  Hum
                              15%
>>
                   BP
                            900 mBar
>>
>>
>>
>>
>> Problems/Comments
              1.
                   Ran into problems with the first set of BORs
>>
>> on 3C84 (ANT and Power Meters were acting up)
              2. The Operator had to reset the ASC to get the
>>
>> Antenna on point for every source.
              3. 30 Boresits on 3C84, Saturn, Jupiter and 3C273.
>>
               1 SRC Z-Scan on 3C273 with Data
>>
         4.
         5.
               1 SRC Z-Scan on Jupiter with Data.
>>
>>
>>
>> Crew Supervisors Comments:
>>
>>
      None.
>>
      Ron Winkler
>>
>>
>>
>>
>> Regards,
>> R. Rose
>> RARG/ADVDEV
>> DSS14
>> Phone: 760.255.8470
>> FAX: 760.255.8515
>>
>> << File: 4|21K141.EFF >> << File: 4|21K141.PTG >> << File: DR|FT141.DAT
>> >> << File: OBS141.CSV >> << File: PRE141.CSV >> << File: RA141.DAT >>
>>
```